

Application No. 10/731,606
Reply to Office Action of January 19, 2007

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Docket No.: 60395(49381)

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims

1 (Currently amended). An image forming apparatus including an acquisition unit for acquiring an image signal, and an image forming unit for forming an image based on the image signal acquired by said acquisition unit on a sheet having one or a plurality of memories, comprising:

an encryption key creating unit for creating an encryption key when said acquisition unit acquires an image signal;

an encrypting unit for encrypting the image signal with the encryption key created by said encryption key creating unit; and

a writing unit for writing the encryption key into the memory on said sheet having one or a plurality of memories,

wherein said image forming unit forms an image based on the image signal encrypted by said encrypting unit on the said sheet having one or a plurality of memories.

2 (Currently amended). The image forming apparatus of claim 1, further comprising:

an image reading unit for reading the image formed on the said sheet having one or a plurality of memories;

a memory reading unit for reading the encryption key from the memory when said image reading unit reads the image; and

a decrypting unit for decrypting the image signal of the image read by said image reading unit, with the encryption key read by said memory reading unit,

wherein said image forming unit forms an image based on the image signal decrypted by said decrypting unit on a another sheet.

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3 (Currently amended). The image forming apparatus of claim 1, further comprising an information acquiring/creating unit for acquiring or creating information about the image encrypted with the encryption key,

wherein said writing unit writes the encryption key and the information acquired or created by said information acquiring/creating unit into the same memory, or different memories on said sheet having one or a plurality of memories.

4 (Currently amended). The image forming apparatus of claim 2,

wherein said memory reading unit reads the encryption key and information about the image encrypted with the encryption key from the same memory, or different memories on said sheet having one or a plurality of memories, when said image reading unit reads the image, and said image forming apparatus further comprises a display unit for displaying the information read by said memory reading unit.

5 (Currently amended). The image forming apparatus of claim 4, wherein

the information read by said memory reading unit includes the number of times the image based on the decrypted image signal of the read image was formed, and said writing unit writes the number of times obtained by adding one to the number read by said memory reading unit into the same memory or different memory on said sheet having one or a plurality of memories so as to update the number of times.

6 (Currently amended). The image forming apparatus of claim 5, wherein

said image forming unit forms a number indicating the number of times obtained by adding one to the memory on said the-sheet having one or a plurality of memories when forming the image based on the decrypted image signal on the said sheet having one or a plurality of memories.

7 (Original). The image forming apparatus of claim 6, wherein

said image forming unit forms the number in a visually inconspicuous form within a region where the image is formed.

8 (Original). The image forming apparatus of claim 5, wherein

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the information read by said memory reading unit includes the number of times the image based on the decrypted image signal of the read image was formed and a predetermined numerical value, and said image forming apparatus further comprises: a judging unit for judging whether the number read by said memory reading unit is larger or smaller than the predetermined numerical value; and a prohibiting unit for prohibiting said decrypting unit from decrypting the image signal with the encryption key when said judging unit judges that the number is larger.

9 (Original). The image forming apparatus of claim 4, wherein

the information read by said memory reading unit includes a period, and said image forming apparatus further comprises: a timer; a judging unit for judging whether or not a time shown by said timer is within the period read by said memory reading unit; and a prohibiting unit for prohibiting said decrypting unit from decrypting the image signal with the encryption key when said judging unit judges that the time is within the read period.

10 (Original). The image forming apparatus of claim 4, wherein

the information read by said memory reading unit includes one or a plurality of identifiers of image forming apparatus,

said image forming apparatus further comprises: a storing unit for storing an identifier; and a judging unit for judging whether or not the identifiers read by said memory reading unit include the identifier stored in said storing unit, and

said decrypting unit decrypts the image signal with the encryption key only when said judging unit judges that the read identifiers include the stored identifier.

11 (Original). The image forming apparatus of claim 4, wherein

the information read by said memory reading unit includes a code,

said image forming apparatus further comprises: an input unit for inputting a code; and a judging unit for judging whether or not the code inputted by said input unit and the code read by said memory reading unit are identical, and

said decrypting unit decrypts the image signal with the encryption key only when said judging unit judges that the codes are identical.

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12 (Currently amended). An image forming apparatus including an image reading unit for reading an image formed on a sheet having one or a plurality of memories storing an encryption key, and an image forming unit for forming an image on a sheet, based on an image signal of the image read by said image reading unit, comprising:

a memory reading unit for reading the encryption key from the memory on said sheet having one or a plurality of memories when said image reading unit reads the image; and

a decrypting unit for decrypting the image signal of the image read by said image reading unit, with the encryption key read by said memory reading unit,

wherein said image forming unit forms an image based on the image signal decrypted by said decrypting unit on a another sheet.

13 (Currently amended). The image forming apparatus of claim 12, wherein

said memory reading unit reads the encryption key and information about the image encrypted with the encryption key from the same or different memories on said sheet having one or a plurality of memories when said image reading unit reads the image, and said image forming apparatus further comprises a display unit for displaying the information read by said memory reading unit.

14 (Currently amended). The image forming apparatus of claim 13, wherein

the information read by said memory reading unit includes the number of times the image based on the decrypted image signal of the read image was formed, and said writing unit writes the number of times obtained by adding one to the number read by said memory reading unit into the same memory or different memory on said sheet having one or a plurality of memories so as to update the number of times.

15 (Currently amended). The image forming apparatus of claim 14, wherein

said image forming unit forms a number indicating the number of times obtained by adding one to the memory on the said sheet having one or a plurality of memories when forming the image based on the decrypted image signal on the another sheet.

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16 (Currently amended). The image forming apparatus of claim 16, wherein
said image forming unit forms the number in a visually inconspicuous form within
a region where the decrypted image is formed.

17 (Original). The image forming apparatus of claim 14, wherein
the information read by said memory reading unit includes the number of times
the image based on the decrypted image signal of the read image was formed and a
predetermined numerical value, and said image forming apparatus further comprises: a
judging unit for judging whether the number read by said memory reading unit is larger
or smaller than the predetermined numerical value; and a prohibiting unit for prohibiting
said decrypting unit from decrypting the image signal with the encryption key when said
judging unit judges that the number is larger.

18 (Original). The image forming apparatus of claim 13, wherein
the information read by said memory reading unit includes a period, and said
image forming apparatus further comprises: a timer; a judging unit for judging whether
or not a time shown by said timer is within the period read by said memory reading unit;
and a prohibiting unit for prohibiting said decrypting unit from decrypting the image
signal with the encryption key when said judging unit judges that the time is within the
read period.

19 (Original). The image forming apparatus of claim 13, wherein
the information read by said memory reading unit includes one or a plurality of
identifiers of image forming apparatus,
said image forming apparatus further comprises: a storing unit for storing an
identifier; and a judging unit for judging whether or not the identifiers read by said
memory reading unit include the identifier stored in said storing unit, and
said decrypting unit decrypts the image signal with the encryption key only when
said judging unit judges that the read identifiers include the stored identifier.

20 (Original). The image forming apparatus of claim 13, wherein the information
read by said memory reading unit includes a code,

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said image forming apparatus further comprises: an input unit for inputting a code; and a judging unit for judging whether or not the code inputted by said input unit and the code read by said memory reading unit are identical, and
said decrypting unit decrypts the image signal with the encryption key only when said judging unit judges that the codes are identical.